

Replacement Sheet
Serial No. 10/597,373
Inventor: M. Edward Medof

3121	actacagggc	accgactcat	tgggtcactca	tctgctgaat	gtatcctctc	aggcaatact
3181	gcccatgtga	gcacgaagcc	gccaatgtgt	caacgaattc	cttggtgggt	acccccacc
3241	atcgccaatg	gagatttcoat	tagcaccaac	agagagaatt	ttcactatgg	atcagtggtg
3301	acctaccgct	gcaatcttgg	aagcagaggg	agaaaggtgt	ttgagcttgt	gggtgagccc
3361	tccatatact	gcaccagcaa	tgacgatcaa	gtgggcatct	ggagcggccc	cgccccctag
3421	tgcattatac	ctaacaaatg	cacgcctcca	aatgtggaaa	atggaatatt	ggtatctgac
3481	aacagaagct	tatttttcctt	aaatgaagtt	gtggagttta	ggtgtcagcc	tggctttgtc
3541	atgaaaggac	cccgccgtgt	gaagtgccag	gccctgaaca	aatgggagcc	agagttacca
3601	agctgctcca	gggtgtgtca	gccgcctcca	gaaatcctgc	atggtgagca	taccccaagc
3661	catcaggaca	acttttcacc	tgggcaggaa	gtgttctaca	gctgtgagcc	tggctatgac
3721	ctcagagggg	ctgcgtctct	gcactgcaca	ccccagggag	actggagccc	tgaagccccg
3781	agatgtgcag	tgaatcctg	tgatgacttc	ttgggtcaac	tcctcatgg	ccgtgtgcta
3841	tttccactta	atctccagct	tggggcaaa	gtgtcctttg	tctgtgatga	agggtttcgc
3901	ttaaagggca	gttccgttag	tcattgtgtc	ttggttgga	tgagaagcct	ttggaataac
3961	agtgttctgt	tgtgtgaaca	tatcttttgt	ccaaatcctc	cagctatcct	taatgggaga
4021	cacacaggaa	ctccctctgg	agatattccc	tatggaaaag	aaatatctta	cacatgtgac
4081	ccccaccag	acagagggat	gaccttcaac	ctcattgggg	agagcaccat	ccgctgcaca
4141	agtgaccctc	atgggaatgg	ggtttgagac	agccctgccc	ctcgctgtga	actttctgtt
4201	cgtgctggtc	actgtaaaac	cccagagcag	tttccatttg	ccagtcctac	gatcccaatt
4261	aatgactttg	agtttccagt	cgggacatct	ttgaattatg	aatgocgtcc	tgggtathtt
4321	gggaaaatgt	tctctatctc	ctgcctagaa	aacttgggtc	ggtcaagtgt	tgaagacaac
4381	tgtagacgaa	aatcatgtgg	acctccacca	gaacccttca	atggaatggt	gcatataaac
4441	acagatacac	agtttggtatc	aacagttaat	tattcttgta	atgaagggtt	tcgactcatt
4501	ggttccccat	ctactacttg	tctcgtctca	ggcaataatg	tcacatggga	taagaaggca
4561	cctattttgt	agatcatatc	ttgtgagcca	cctccaacca	tatccaatgg	agacttctac
4621	agcaacaata	gaacatcttt	tcacaatgga	acggtggtaa	cttaccagtgt	ccacactgga
4681	ccagatggag	aacagctggt	tgagcttgtg	ggagaacggg	caatatattg	caccagcaaa
4741	gatgatcaag	ttggtgtttg	gagcagccct	ccccctcggg	gtattttctac	taataaatgc
4801	acagctccag	aagttgaaaa	tgcaattaga	gtaccaggaa	acaggagtgt	cttttccctc
4861	actgagatca	tcagatttag	atgtcagccc	gggtttgtca	tggtaggggc	ccacactgtg
4921	cagtgccaga	ccaatggcag	atgggggccc	aagctgccac	actgctccag	ggtgtgtcag
4981	ccgcctccag	aaatcctgca	tgggtgagcat	accctaagcc	atcaggacaa	cttttcacct
5041	gggcaggaag	tgtttctacag	ctgtgagccc	agctatgacc	tcagaggggc	tgcgtctctg
5101	cactgcacgc	cccagggaga	ctggagccct	gaagccccta	gatgtacagt	gaaatcctgt
5161	gatgacttcc	tgggccaact	ccctcatggc	cgtgtgctac	ttccacttaa	tctccagctt
5221	ggggcaagg	tgtcctttgt	ttgcgatgaa	gggttccgat	taaaaggcag	gtctgctagt
5281	cattgtgtct	tggctggaat	gaaagccctt	tggaaatagca	gtgttccagt	gtgtgaacaa
5341	atcttttgtc	caaatcctcc	agctatcctt	aatgggagac	acacaggaac	tccctttgga
5401	gatatctcct	atggaaaaga	aatatcttac	gcatgcgaca	cccaccagaa	cagagggatg
5461	accttcaacc	tcattgggga	gagctccatc	cgctgcacaa	gtgacctca	agggaaatggg
5521	gtttggagca	gccctgcccc	tcgctgtgaa	ctttctgttc	ctgctgcctg	cccacatcca
5581	cccaagatcc	aaaacgggca	ttacattgga	ggacaacgtat	ctctatatct	tcctgggatg
5641	acaatcagct	acacttgtga	ccccggctac	ctgttagtgg	gaaagggcct	cattttctgt
5701	acagaccagg	gaatctggag	ccaattggat	cattattgca	agaagtaaa	ttgtagcttc
5761	ccactgttta	tgaatggaat	ctcgaaggag	ttagaaatga	aaaaagtata	tcactatgga
5821	gattatgtga	ctttgaagtg	tgaagatggg	tatactctgg	aaggcagtc	ctggagccag
5881	tgccaggcgg	atgacagatg	ggaccctcct	ctggccaaat	gtacctctcg	tgcacatgat
5941	gctctcatag	ttggcacttt	atctggtacg	atcttcttta	ttttaactcat	cattttcctc
6001	tcttgataaa	ttctaaggca	cagaaaaggc	aataatgcac	atgaaaaccc	taaagaagtg
6061	gctatccatt	tacattctca	aggaggcagc	agcgttcatc	cccgaaactct	gcaaacaat
6121	gaagaaaata	gcagggtcct	tccttgacaa	agtactatac	agctgaagaa	catctcgaat
6181	acaatttttg	tgggaaagga	gccaatgat	ttcaacagaa	tcagatctga	gcttcataaa
6241	gtctttgaag	tgacttcaca	gagacgcaga	catgtgcaact	tgaagatgct	gccccctccc
6301	tggtacctag	caaagctcct	gcctctttgt	gtgcgtcaact	gtgaaacccc	cacccttctg
6361	cctcgtgcta	aacgcacaca	gtatctagtc	aggggaaaag	actgcattta	ggagatagaa
6421	aatagtttgg	attacttaaa	ggaataaggt	gttgcttgga	atttctgggt	tgtgaaggtg

Fig. 3

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6481 tcactgttct tttttaaaat atttgtaata tggaaatgggc tcagtaagaa gagcttggaa
6541 aatgcagaaa gttatgaaaa ataagtcact tataattatg ctacctactg ataaccactc
6601 ctaatatattt gattcatttt ctgcctatct tctttcacat atgtgttttt ttacatacgt
6661 acttttcccc ccttagtttg tttcctttta ttttatagag cagaacccta gtctttttaa
6721 cagtttagag tgaaatatat gctatatcag tttttacttt ctctagggag aaaaattaat
6781 ttactagaaa ggcatagaat gatcatggga agagtgggta agactactga agagaaatat
6841 ttggaaaata agatttcgat atcttctttt tttttgagat ggagtcctggc tctgtctccc
6901 aggctggagt gcagtggcgt aatctcggct cactgcaacg tccgcctccc g

Fig. 3

Fig. 4A

SEQ. ID NO:5

MEPPGRRECPFPSWRFPGLLAAMVLLLYSFSACEEPPTFEAMELIGKP 50
KPYYEIGERVDYKCKKGYFYIPPLATHHTICDRNHTWLPVSDDACYRETCP 100
YIRDPLNGQAVPANGTYEFGYQMHFICNEGYYLIGEEILYCELKGSVAIW 150
SGKPPICEKVLCTPPPKIKNGKHTFSEVEVFEYLDVITYSCDPAPGPDPF 200
SLIGESTIYCGDNSVWSRAAPECKVVKCRFPVVENGKQISGFGKKFYKA 250
TVMFECDKGFYLDGSDTIVCDSNSTWDPPVPKCLKVSTSSTTKSPASSAS 300
GPRPTYKPPVSNYPGYPKPEEGILDSLDVWVIAVIVIAIVVGVAVICVVP 350
YRYLQRRKKKGKADGGAHEYATYQTKSTTPAEQRG

Fig. 4B

SEQ. ID NO:6

1 tctgctttcc tccggagaaa taacagcgtc ttcgcgcccg cgcattggagc ctcccgcccg
61 cgcgagtggt ccttttcctt cctggcgctt tcttggttg cttctggcgg ccattggtgtt
121 gctgctgtac tctttctcog atgcctgtga ggagccacca acatttgaag ctatggagct
181 cattggtaaa ccaaaaccct actatgagat tgggtgaacga gtagattata agtgtaaaaa
241 aggatacttc tatatacctc ctcttgccac ccatactatt tgtgatcgga atcatacatg
301 gctacctgtc tcagatgacg cctgttatag agaaacatgt ccatatatac gggatccttt
361 aaatggccaa gcagtcctctg caaatgggac ttacgagttt ggttatcaga tgcactttat
421 ttgtaatgag ggttattact taattgggtga agaaattcta tattgtgaac tttaaaggatc
481 agtagcaatt tggagcggta agccccaat atgtgaaaag gttttgtgta caccacctcc
541 aaaaataaaa aatggaaaac acacctttag tgaagtagaa gtatttgagt atcttgatgc
601 agtaacttat agttgtgatc ctgcacctgg accagatcca ttttacttta ttggagagag
661 cacgatttat tgtggtgaca attcagtggt gagtcgtgct gctccagagt gtaaagtggg
721 caaatgtcga tttccagtag tcgaaaatgg aaaacagata tcaggatttg gaaaaaatt
781 ttactacaaa gcaacagtta tgtttgaatg cgataagggg ttttacctcg atggcagcga
841 cacaattgtc tgtgacagta acagtacttg ggatccccca gttccaaagt gtcttaaagt
901 gtcgacttct tccactacaa aatctccagc gtccagtgcc tcaggtccta ggctactta
961 caagcctcca gtctcaaatt atccaggata tcctaaacct gaggaaggaa tacttgacag
1021 tttggatggt tgggtcattg ctgtgattgt tattgccata gttgttggag ttgcagtaat
1081 ttgtgttggt ccgtacagat atcttcaaag gaggaagaag aaagggaaag cagatggtgg
1141 agctgaatat gccacttacc agactaaatc aaccactcca gcagagcaga gaggctgaat
1201 agattccaca acctggtttg ccagttcatc ttttgactct attaaaatct tcaatagttg
1261 ttattctgta gtttactct catgagtga actgtggctt agctaattt gcaatgtggc
1321 ttgaatgtag gtagcatcct ttgatgcttc tttgaaactt gtatgaattt gggatgaac
1381 agattgcctg ctttccctta aataacactt agatttattg gaccagtcag cacagcatgc
1441 ctggttgat taaagcaggg atatgctga ttttataaaa ttggcaaaat tagagaaata
1501 tagttcacia tgaaattata ttttctttgt

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I G E S T I R C T S D P Q G N G V W S S
P A P R C G I H H H H H H

Fig. 8A

Fig. 8B

SEQ. ID NO: 14

ATGACCGTCGCGCGGCCGAGCGTGCCCGCGGCGCTGCCC
CTCCTCGGGGAGCTGCCCCGGCTGCTGCTGCTGGTGTGTTGTGCCTGCCGGCCGTGTGGGGT
GACTGTGGCCTTCCCCCAGATGTACCTAATGCCCAGCCAGCTTTGGAAGGCCGTACAAGTTT
CCCGAGGATACTGTAATAACGTACAAATGTGAAGAAAGCTTTGTGAAAATTCCTGGCGAGAAG
GACTCAGTGATCTGCCTTAAGGGCAGTCAATGGTCAGATATTGAAGAGTTCTGCAATCGTAGC
TGCGAGGTGCCAACAAGGCTAAATTCTGCATCCCTCAAACAGCCTTATATCACTCAGAATTAT
TTTCCAGTCGGTACTGTTGTGGAATATGAGTGCCGTCCAGGTTACAGAAGAGAACCTTCTCTA
TCACCAAACTAACTTGCCTTCAGAATTTAAAATGGTCCACAGCAGTCGAATTTTGTAAAAAG
AAATCATGCCCTAATCCGGGAGAAATACGAAATGGTCAGATTGATGTACCAGGTGGCATATTA
TTTGGTGCAACCATCTCCTTCTCATGTAACACAGGGTACAAATTATTTGGCTCGACTTCTAGT
TTTTGTCTTATTTTCAGGCAGCTCTGTCCAGTGGAGTGACCCGTTGCCAGAGTGACAGAGAAAT
TATTGTCCAGCACCACCACAAATTGACAATGGAATAATTCAAGGGGAACGTGACCATTATGGA
TATAGACAGTCTGTAACGTATGCATGTAATAAAGGATTCACCATGATTGGAGAGCACTCTATT
TATTGTACTGTGAATAATGATGAAGGAGAGTGGAGTGGCCCACCACCTGAATGC
TCGAGTCCTAACAAATGCACGCCTCCAAATGTGGAAAATGGAATATTGGTATCTGACAAC
AGAAGCTTATTTTCCTTAAATGAAGTTGTGGAGTTTAGGTGTGAGCCTGGCTTTGTCTATG
AAAGGACCCCGCCGTGTGAAGTGCCAGGCCCTGAACAAATGGGAGCCGGAGCTACCAAGC
TGCTCCAGGGTATGTGAGCCACCTCCAGATGTCTGTCATGCTGAGCGTACCCAAAGGGAC
AAGGACAACCTTTTACCTGGGCAGGAAGTGTCTACAGCTGTGAGCCCGGCTACGACCTC
AGAGGGGCTGCGTCTATGCGCTGCACACCCAGGGAGACTGGAGCCCTGCAGCCCCCACA
TGTGAAGTGAAATCCTGTGATGACTTCATGGGCCAACTTCTTAATGGCCGTGTGCTATTT
CCAGTAAATCTCCAGCTTGGAGCAAAAGTGGATTTTGTGTTGTGATGAAGGATTTCAATTA
AAAGGCAGCTCTGCTAGTTACTGTGCTTGGCTGGAATGGAAAGCCTTTGGAATAGCAGT
GTTCCAGTGTGTGAACAAATCTTTTGTCCAAGTCCTCCAGTTATTCTTAATGGGAGACAC
ACAGGAAAACCTCTGGAAGTCTTTTCCCTTTGGAAAAGCAGTAAATTACACATGCGACCCC
CACCCAGACAGAGGGACGAGCTTCGACCTCATTGGAGAGAGCACCATCCGCTGCACAAGT
GACCCTCAAGGGAATGGGGTTTGGAGCAGCCCTGCCCTCGCTGTGGAATTCTGGGTAC
TGTCAGCCCCAGATCATTTTCTGTTTGCCAAGTTGAAAACCCAAACCAATGCATCTGAC
TTTCCCATTGGGACATCTTTAAAGTACGAATGCCGTCTGAGTACTACGGGAGGCCATT
TCTATCACATGTCTAGATAACCTGGTCTGGTCAAGTCCCAAAGATGTCTGTAAACGTAAA
TCATGTAAAACTCCTCCAGATCCAGTGAATGGCATGGTGCATGTGATCACAGACATCCAG
GTTGGATCCAGAATCAACTATTCTTGTAACAGGGCACCGACTCATTTGGTCACTCATCT
GCTGAATGTATCCTCTCGGGCAATGCTGCCCATTTGGAGCACGAAGCCGCAATTTGTCAA
CGAATTCCTTGTGGGCTACCCCCACCATCGCCAATGGAGATTTTATTAGCACCAACAGA
GAGAATTTTCACTATGGATCAGTGGTGACCTACCGCTGCAATCCTGGAAGCGGAGGGAGA
AAGGTGTTTGAAGCTTGTGGGTGAGCCCTCCATATACTGCACCAGCAATGACGATCAAGTG
GGCATCTGGAGCGGCCCCGGCCCCCTCAGTGCATTATACCTAACAAATGCACGCCTCCAAAT
GTGGAAAATGGAATATTGGTATCTGACAACAGAAGCTTATTTTCTTAAATGAAGTTGTG
GAGTTTAGGTGTGAGCCTGGCTTTGTGTCATGAAAGGACCCCGCCGTGTGAAGTGCCAGGCC
CTGAACAAATGGGAGCCGGAGCTACCAAGCTGCTCCAGGGTATGTGAGCCACCTCCAGAT
GTCCTGCATGCTGAGCGTACCCAAAGGGACAAGGACAACCTTTTACCCGGGCAGGAAGTG
TTCTACAGCTGTGAGCCCGGCTATGACCTCAGAGGGGCTGCGTCTATGCGCTGCACACCC
CAGGGAGACTGGAGCCCTGCAGCCCCCACATGTGAAGTGAAATCCTGTGATGACTTCATG
GGCCAACTTCTTAATGGCCGTGTGCTATTTCCAGTAAATCTCCAGCTTGGAGCAAAAGTG

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GATTTTGTGTGTGATGAAGGATTTCAATTAAAAGGCAGCTCTGCTAGTTATTGTGTCTTG
GCTGGAATGGAAAGCCTTTGGAATAGCAGTGTTCAGTGTGTGAACAAATCTTTTGTCCA
AGTCCTCCAGTTATTCCTAATGGGAGACACACAGGAAAACCTCTGGAAGTCTTTCCCTTT
GGAAAAGCAGTAAATTACACATGCGACCCCCACCCAGACAGAGGGACGAGCTTCGACCTC
ATTGGAGAGAGCACCATCCGCTGCACAAGTGACCCTCAAGGGAATGGGGTTTGGAGCAGC
CCTGCCCCCTCGCTGTGGAATTCATCACCATCACCATCACTAAAGATCT

Fig. 8B

Fig. 9A
SEQ ID NO:15

	L	L	G	E	L	P	R	L	L	L	L	V	L	L	C	L	P	A	A	L	P	
D	C	G	L	P	P	D	V	P	N	A	Q	P	A	L	E	G	R	T	S	F		
P	E	D	T	V	I	T	Y	K	C	E	E	S	F	V	K	I	P	G	E	K		
D	S	V	I	C	L	K	G	S	Q	W	S	D	I	E	E	F	C	N	R	S		
C	E	V	P	T	R	L	N	S	A	S	L	K	Q	P	Y	I	T	Q	N	Y		
F	P	V	G	T	V	V	E	Y	E	C	R	P	G	Y	R	R	E	P	S	L		
S	P	K	L	T	C	L	Q	N	L	K	W	S	T	A	V	E	F	C	K	K		
K	S	C	P	N	P	G	E	I	R	N	G	Q	I	D	V	P	G	G	I	L		
F	G	A	T	I	S	F	S	C	N	T	G	Y	K	L	F	G	S	T	S	S		
F	C	L	I	S	G	S	S	V	Q	W	S	D	P	L	P	E	C	R	E	I		
Y	C	P	A	P	P	Q	I	D	N	G	I	I	Q	G	E	R	D	H	Y	G		
Y	R	Q	S	V	T	Y	A	C	N	K	G	F	T	M	I	G	E	H	S	I		
Y	C	T	V	N	N	D	E	G	E	W	S	G	P	P	P	E	C					
S	S	P	N	K	C	T	P	P	N	V	E	N	G	I	L	V	S	D	N			
R	S	L	F	S	L	N	E	V	V	E	F	R	C	Q	P	G	F	V	M			
K	G	P	R	R	V	K	C	Q	A	L	N	K	W	E	P	E	L	P	S			
C	S	R	V	C	Q	P	P	P	D	V	L	H	A	E	R	T	Q	R	D			
K	D	N	F	S	P	G	Q	E	V	F	Y	S	C	E	P	G	Y	D	L			
R	G	A	A	S	M	R	C	T	P	Q	G	D	W	S	P	A	A	P	T			
C	E	V	K	S	C	D	D	F	M	G	Q	L	L	N	G	R	V	L	F			
P	V	N	L	Q	L	G	A	K	V	D	F	V	C	D	E	G	F	Q	L			
K	G	S	S	A	S	Y	C	V	L	A	G	M	E	S	L	W	N	S	S			
V	P	V	C	E	Q	I	F	C	P	S	P	P	V	I	P	N	G	R	H			
T	G	K	P	L	E	V	F	P	F	G	K	A	V	N	Y	T	C	D	P			
H	P	D	R	G	T	S	F	D	L	I	G	E	S	T	I	R	C	T	S			
D	P	Q	G	N	G	V	W	S	S	P	A	P	R	C	G	I	L	G	H			
C	Q	A	P	D	H	F	L	F	A	K	L	K	T	Q	T	N	A	S	D			
F	P	I	G	T	S	L	K	Y	E	C	R	P	E	Y	Y	G	R	P	F			
S	I	T	C	L	D	N	L	V	W	S	S	P	K	D	V	C	K	R	K			
S	C	K	T	P	P	D	P	V	N	G	M	V	H	V	I	T	D	I	Q			
V	G	S	R	I	N	Y	S	C	T	T	G	H	R	L	I	G	H	S	S			
A	E	C	I	L	S	G	N	A	A	H	W	S	T	K	P	P	I	C	Q			
R	I	P	C	G	L	P	P	T	I	A	N	G	D	F	I	S	T	N	R			
E	N	F	H	Y	G	S	V	V	T	Y	R	C	N	P	G	S	G	G	R			
K	V	F	E	L	V	G	E	P	S	I	Y	C	T	S	N	D	D	Q	V			
G	I	W	S	G	P	A	P	Q	C	I	I	P	N	K	C	T	P	P	N			

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V E N G I L V S D N R S L F S L N E V V
E F R C Q P G F V M K G P R R V K C Q A
L N K W E P E L P S C S R V C Q P P P D
V L H A E R T Q R D K D N F S P G Q E V
F Y S C E P G Y D L R G A A S M R C T P
Q G D W S P A A P T C E V K S C D D F M
G Q L L N G R V L F P V N L Q L G A K V
D F V C D E G F Q L K G S S A S Y C V L
A G M E S L W N S S V P V C E Q I F C P
S P P V I P N G R H T G K P L E V F P F
G K A V N Y T C D P H P D R G T S F D L
I G E S T I R C T S D P Q G N G V W S S
P A P R C G I L G H C Q A P D H F L F A
K L K T Q T N A S D F P I G T S L K Y E
C R P E Y Y G R P F S I T C L D N L V W
S S P K D V C K R K S C K T P P D P V N
G M V H V I T D I Q V
G S R I N Y S C T T G H R L I G H S S
A E C I L S G N A A H W S T K P P I C Q
R I P C G L P P T I A N G D F I S T N R
E N F H Y G S V V T Y R C N P G S G G R
K V F E L V G E P S I Y C T S N D D Q V
G I W S G P A P Q C I I P N K C T P P N
V E N G I L V S D N R S L F S L N E V V
E F R C Q P G F V M K G P R R V K C Q A
L N K W E P E L P S C S R V C Q P P P D
V L H A E R T Q R D K D N F S P G Q E V
F Y S C E P G Y D L R G A A S M R C T P
Q G D W S P A A P T C E V K S C D D F M
G Q L L N G R V L F P V N L Q L G A K V
D F V C D E G F Q L K G S S A S Y C V L
A G M E S L W N S S V P V C E Q I F C P
S P P V I P N G R H T G K P L E V F P F
G K A V N Y T C D P H P D R G T S F D L
I G E S T I R C T S D P Q G N G V W S S
P A P R C G I H H H H H H

Fig. 9A

Fig 9B

SEQ. ID NO:16

ATGACCGTCGCGCGGCCGAGCGTGCCCGCGGCGCTGCCC
CTCCTCGGGGAGCTGCCCCGGCTGCTGCTGCTGGTGCTGTTGTGCTGCGGCCGCTGTGGGGT
GACTGTGGCCTTCCCCAGATGTACCTAATGCCAGCCAGCTTTTGAAGGCCGTACAAGTTTT
CCCGAGGATACTGTAATAACGTACAAATGTGAAGAAAGCTTTGTGAAAATTCTGGCGAGAAG
GACTCAGTGATCTGCCTTAAGGGCAGTCAATGGTCAGATATTGAAGAGTTCTGCAATCGTAGC
TGCGAGGTGCCAACAAGGCTAAATTCTGCATCCCTCAAACAGCCTTATATCACTCAGAATTAT
TTTCCAGTCGGTACTGTTGTGGAATATGAGTGCCGTCCAGGTTACAGAAGAGAACCTTCTCTA

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TCACCAAACTAACTTGCCTTCAGAATTTAAATGGTCCACAGCAGTCGAATTTTGTAAAAAC
AAATCATGCCCTAATCCGGGAGAAATACGAAATGGTCAGATTGATGTACCAGGTGGCATATTA
TTTGGTGCAACCATCTCCTTCTCATGTAACACAGGGTACAAATTATTTGGCTCGACTTCTAGT
TTTTGTCTTATTTTCAGGCAGCTCTGTCCAGTGGAGTGACCCGTTGCCAGAGTGCAGAGAAATT
TATTGTCCAGCACCACCACAAATTGACAATGGAATAATTCAAGGGGAACGTGACCATTATGGA
TATAGACAGTCTGTAACTGATGCATGTAATAAAGGATTACCCATGATTGGAGAGCACTCTATT
TATTGTACTGTGAATAATGATGAAGGAGAGTGGAGTGGCCCACCACCTGAATGC
TCGAGTCTTAACAAATGCACGCCTCCAAATGTGGAAAATGGAATATTGGTATCTGACAAC
AGAAGCTTATTTTCTTAAATGAAGTTGTGGAGTTTAGGTGTCAGCCTGGCTTTGTTCATG
AAAGGACCCCGCCGTGTGAAGTGCCAGGCCCTGAACAAATGGGAGCCGGAGCTACCAAGC
TGCTCCAGGGTATGTCAGCCACCTCCAGATGTCCTGCATGCTGAGCGTACCCAAAGGGAC
AAGGACAACTTTTTCACCTGGGCAGGAAGTGTCTACAGCTGTGAGCCCGGCTACGACCTC
AGAGGGGCTGCGTCTATGCGCTGCACACCCAGGGAGACTGGAGCCCTGCAGCCCCACA
TGTGAAGTGAAATCCTGTGATGACTTCATGGGCCAACTTCTTAATGGCCGTGTGCTATTT
CCAGTAAATCTCCAGCTTGGAGCAAAAGTGGATTTTGTGTTGTGATGAAGGATTTCAATTA
AAAGGCAGCTCTGCTAGTTACTGTGTCTTGGCTGGAATGGAAAGCCTTTGGAATAGCAGT
GTTCCAGTGTGTGAACAAATCTTTTGTCCAAGTCTCCAGTTATTCTTAATGGGAGACAC
ACAGGAAAACCTCTGGAAGTCTTTCCCTTTGGAAAAGCAGTAAATTACACATGCGACCCC
CACCCAGACAGAGGGACGAGCTTCGACCTCATTGGAGAGAGCACCATCCGCTGCACAAGT
GACCTCAAGGGAATGGGGTTTGGAGCAGCCCTGCCCCCTCGCTGTGGAATTCTGGGTAC
TGTCAAGCCCCAGATCATTTTCTGTTTGCCAAGTTGAAAACCCAAACCAATGCATCTGAC
TTTCCCATTTGGGACATCTTTAAAGTACGAATGCCGTCCTGAGTACTACGGGAGGCCATT
TCTATCACATGCTAGATAACCTGGTCTGGTCAAGTCCCAAAGATGTCTGTAAACGTAAA
TCATGTAAAACTCCTCCAGATCCAGTGAATGGCATGGTGCATGTGATCACAGACATCCAG
GTTGGATCCAGAATCAACTATTCTTGTACTACAGGGCACCGACTCATTGGTCACTCATCT
GCTGAATGTATCCTCTCGGGCAATGCTGCCCATTTGGAGCACGAAGCCGCCAATTTGTCAA
CGAATTCCTTGTGGGCTACCCCCACCATCGCCAATGGAGATTTTCATTAGCACCAACAGA
GAGAATTTTCACTATGGATCAGTGGTGACCTACCGCTGCAATCCTGGAAGCGGAGGGAGA
AAGGTGTTTGTGAGCTTGTGGGTGAGCCCTCCATATACTGCACCAGCAATGACGATCAAGTG
GGCATCTGGAGCGGCCCGGCCCTCAGTGCAATTATACCTAACAAATGCACGCCTCCAAAT
GTGGAAAATGGAATATTGGTATCTGACAACAGAAGCTTATTTTCTTAAATGAAGTTGTG
GAGTTTAGGTGTCAGCCTGGCTTTGTTCATGAAAGGACCCCGCCGTGTGAAGTGCCAGGCC
CTGAACAAATGGGAGCCGGAGCTACCAAGCTGCTCCAGGGTATGTCAGCCACCTCCAGAT
GTCCTGCATGCTGAGCGTACCCAAAGGGACAAGGACAACTTTTCACCCGGGCAGGAAGTG
TTCTACAGCTGTGAGCCCGGCTATGACCTCAGAGGGGCTGCGTCTATGCGCTGCACACCC
CAGGGAGACTGGAGCCCTGCAGCCCCCACATGTGAAGTGAAATCCTGTGATGACTTCATG
GGCCAACTTCTTAATGGCCGTGTGCTATTTCCAGTAAATCTCCAGCTTGGAGCAAAAGTG
GATTTTGTGTTGTGATGAAGGATTTCAATTAAGGAGCAGCTCTGCTAGTTATTGTGTCTTG
GCTGGAATGGAAGCCTTTGGAATAGCAGTGTTCAGTGTGTGAACAAATCTTTGTCCA
AGTCTCCAGTTATTCTTAATGGGAGACACACAGGAAAACCTCTGGAAGTCTTTCCCTTT
GGAAAAGCAGTAAATTACACATGCGACCCCCACCCAGACAGAGGGACGAGCTTCGACCTC
ATTGGAGAGAGCACCATCCGCTGCACAAGTGACCCTCAAGGGAATGGGGTTTGGAGCAGC
CCTGCCCCCTCGCTGTGGAATTCTGGGTCACTGTCAAGCCCCAGATCATTTTCTGTTTGCC
AAGTTGAAAACCCAAACCAATGCATCTGACTTTCCCATTTGGGACATCTTTAAAGTACGAA
TGCCGTCCTGAGTACTACGGGAGGCCATTCTCTATCACATGTCTAGATAACCTGGTCTGG
TCAAGTCCCAAAGATGTCTGTAAACGTAAATCATGTAAAACCTCCTCCAGATCCAGTGAAT
GGCATGGTGCATGTGATCACAGACATCCAGTT

GGATCCAGAATCAACTATTCTTGTACTACAGGGCACCGACTCATTGGTCACTCATCT
GCTGAATGTATCCTCTCGGGCAATGCTGCCCATTTGGAGCACGAAGCCGCCAATTTGTCAA
CGAATTCCTTGTGGGCTACCCCCACCATCGCCAATGGAGATTTTCATTAGCACCAACAGA
GAGAATTTTCACTATGGATCAGTGGTGACCTACCGCTGCAATCCTGGAAGCGGAGGGAGA

Fig. 9B

Replacement Sheet
Serial No. 10/597,373
Inventor: M. Edward Medof

R S L F S L N E V V E F R C Q P G F V M
K G P R R V K C Q A L N K W E P E L P S
C S R V C Q P P P D V L H A E R T Q R D
K D N F S P G Q E V F Y S C E P G Y D L
R G A A S M R C T P Q G D W S P A A P T
C E V K S C D D F M G Q L L N G R V L F
P V N L Q L G A K V D F V C D E G F Q L
K G S S A S Y C V L A G M E S L W N S S
V P V C E Q I F C P S P P V I P N G R H
T G K P L E V F P F G K A V N Y T C D P
H P D R G T S F D L I G E S T I R C T S
D P Q G N G V W S S P A P R C G I L
V E S K Y G P P C P S C P A P E F L
G G P S V F L F P P K P K D T L M I S R
T P E V T C V V V D V S Q E D P E V Q F
N W Y V D G V E V H N A K T K P R E E Q
F N S T Y R V V S V L T V L H Q D W L N
G K E Y K C K V S N K G L P S S I E K T
I S K A K G Q P R E P Q V Y T L P P S Q
E E M T K N Q V S L T C L V K G F Y P S
D I A V E W E S N G Q P E D N Y K T T P
P V L D S D G S F F L Y S R L T V D K S
R W Q E G N V F S C S V M H E A L H N H
Y T Q K S L S L S P G K

Fig. 11A

Fig. 11B

SEQ. ID NO:20

ATGACCGTCGCGCGGCCGAGCGTGCCCGCGGCGCTGCCC
CTCCTCGGGGAGCTGCCCCGGCTGCTGCTGCTGGTGCTGTTGTGCCTGCCGGCCGTGTGGGGT
GACTGTGGCCTTCCCCCAGATGTACCTAATGCCCAGCCAGCTTTGGAAGGCCGTACAAGTTTT
CCCGAGGATACTGTAATAACGTACAAATGTGAAGAAAGCTTTGTGAAAATTCCTGGCGAGAAG
GACTCAGTGATCTGCCTTAAGGGCAGTCAATGGTCAGATATTGAAGAGTTCTGCAATCGTAGC
TGCGAGGTGCCAACAAGGCTAAATTCTGCATCCCTCAAACAGCCTTATATCACTCAGAATTAT
TTTCCAGTTCGGTACTGTTGTGGAATATGAGTGCCGTCCAGGTTACAGAAGAGAACCTTCTCTA
TCACCAAACTAACTTGCCTTCAGAATTTAAAATGGTCCACAGCAGTCGAATTTTGTA AAAAG
AAATCATGCCCTAATCCGGGAGAAATACGAAATGGTCAGATTGATGTACCAGGTGGCATATTA
TTTGGTGCAACCATCTCCTTCTCATGTAACACAGGGTACAAATTATTTGGCTCGACTTCTAGT
TTTTGTCTTATTTAGGCAGCTCTGTCCAGTGGAGTGACCCGTTGCCAGAGTGCAGAGAAATT
TATTGTCCAGCACCACCACAAATTGACAAATGGAATAATTCAAGGGGAACGTGACCATTATGGA
TATAGACAGTCTGTAACGTATGCATGTAATAAAGGATTACCATGATTGGAGAGCACTCTATT
TATTGTACTGTGAATAATGATGAAGGAGAGTGGAGTGGCCCACCACCTGAATGC
TCGAGTCTTAACAAATGCACGCCTCCAAATGTGGAAAATGGAATATTGGTATCTGACAAC
AGAAGCTTATTTTCCTTAAATGAAGTTGTGGAGTTTAGGTGTCAGCCTGGCTTTGTCA TG
AAAGGACCCCGCGTGTGAAGTGCCAGGCCCTGAACAAATGGGAGCCGGAGCTACCAAGC
TGCTCCAGGGTATGTCAGCCACCTCCAGATGTCCTGCATGCTGAGCGTACCCAAAGGGAC
AAGGACAACTTTTCACCTGGGCAGGAAGTGTTCTACAGCTGTGAGCCCGGCTACGACCTC

Replacement Sheet
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Inventor: M. Edward Medof

AGAGGGGCTGCGTCTATGCGCTGCACACCCCAGGGAGACTGGAGCCCTGCAGCCCCCACA
TGTGAAGTGAAATCCTGTGATGACTTCATGGGCCAACTTCTTAATGGCCGTGTGCTATTT
CCAGTAAATCTCCAGCTTGGAGCAAAAGTGGATTTTGTGTTGTGATGAAGGATTTCAATTA
AAAGGCAGCTCTGCTAGTTACTGTGTCTTGGCTGGAATGGAAAGCCTTTGGAATAGCAGT
GTTCCAGTGTGTGAACAAATCTTTGTCCAAGTCCTCCAGTTATTCCTAATGGGAGACAC
ACAGGAAAACCTCTGGAAGTCTTTCCCTTTGGAAAAGCAGTAAATTACACATGCGACCCC
CACCCAGACAGAGGGACGAGCTTCGACCTCATTTGGAGAGAGCACCATCCGCTGCACAAGT
GACCCCTCAAGGGAATGGGGTTTGGAGCAGCCCTGCCCCCTCGCTGTGGAATTCTG
GTTGAGTCCAAATATGGTCCCCCATGCCCATCATGCCCAGCACCTGAGTTCCTG
GGGGGACCATCAGTCTTCTGTTCCTTCCCCCAAAACCCAAGGACACTCTCATGATCTCCCGG
ACCCCTGAGGTACAGTGCCTGGTGGTGGACGTGAGCCAGGAAGACCCCGAGGTCCAGTTC
AACTGGTACGTGGATGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAG
TTCAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAAC
GGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGGCCTCCCGTCTTCCATCGAGAAAACC
ATCTCCAAAGCCAAAGGGCAGCCCCGAGAGCCACAGGTGTACACCCTGCCCCCATCCCAG
GAGGAGATGACCAAGAACCAGGTGAGCCTGACCTGCCTGGTCAAAGGCTTCTACCCCAGC
GACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGGACAACCTACAAGACCACGCCCT
CCCGTGTCTGGACTCCGACGGCTCCTTCTTCTCTACAGCAGGCTAACCCTGGACAAGAGC
AGGTGGCAGGAGGGGAATGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCAC
TACACACAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGATAAAGATCT

Fig. 11B

Fig. 12A

SEQ. ID NO:21

ATA TAC GAA TTC TGG GTC ACT GTG AGG AGC CAC CAA CAT TTG AAG C

Fig. 12B

SEQ. ID NO:22

ACA GTG AGA TCT TTA GTG ATG GTG ATG GTG ATG CGA CAC TTT AAG ACA CTT
TGG AAC

Fig. 13A

SEQ. ID NO:23

M	T	V	A	R	P	S	V	P	A	A	L	P								
L	L	G	E	L	P	R	L	L	L	L	V	L	L	C	L	P	A	V	W	G
D	C	G	L	P	P	D	V	P	N	A	Q	P	A	L	E	G	R	T	S	F
P	E	D	T	V	I	T	Y	K	C	E	E	S	F	V	K	I	P	G	E	K
D	S	V	I	C	L	K	G	S	Q	W	S	D	I	E	E	F	C	N	R	S
C	E	V	P	T	R	L	N	S	A	S	L	K	Q	P	Y	I	T	Q	N	Y
F	P	V	G	T	V	V	E	Y	E	C	R	P	G	Y	R	R	E	P	S	L
S	P	K	L	T	C	L	Q	N	L	K	W	S	T	A	V	E	F	C	K	K
K	S	C	P	N	P	G	E	I	R	N	G	Q	I	D	V	P	G	G	I	L
F	G	A	T	I	S	F	S	C	N	T	G	Y	K	L	F	G	S	T	S	S
F	C	L	I	S	G	S	S	V	Q	W	S	D	P	L	P	E	C	R	E	I

Replacement Sheet
Serial No. 10/597,373
Inventor: M. Edward Medof

Y C P A P P Q I D N G I I Q G E R D H Y G
Y R Q S V T Y A C N K G F T M I G E H S I
Y C T V N N D E G E W S G P P P E C
S S P N K C T P P N V E N G I L V S D N
R S L F S L N E V V E F R C Q P G F V M
K G P R R V K C Q A L N K W E P E L P S
C S R V C Q P P P D V L H A E R T Q R D
K D N F S P G Q E V F Y S C E P G Y D L
R G A A S M R C T P Q G D W S P A A P T
C E V K S C D D F M G Q L L N G R V L F
P V N L Q L G A K V D F V C D E G F Q L
K G S S A S Y C V L A G M E S L W N S S
V P V C E Q I F C P S P P V I P N G R H
T G K P L E V F P F G K A V N Y T C D P
H P D R G T S F D L I G E S T I R C T S
D P Q G N G V W S S P A P R C G I L G H
C E E P P T F E A M E L I G K P K P Y Y
E I G E R V D Y K C K K G Y F Y I P P L
A T H T I C D R N H T W L P V S D D A C
Y R E T C P Y I R D P L N G Q A V P A N
G T Y E F G Y Q M H F I C N E G Y Y L I
G E E I L Y C E L K G S V A I W S G K P
P I C E K V L C T P P P K I K N G K H T
F S E V E V F E Y L D A V T Y S C D P A
P G P D P F S L I G E S T I Y C G D N S
V W S R A A P E C K V V K C R F P V V E
N G K Q I S G F G K K F Y Y K A T V M F
E C D K G F Y L D G S D T I V C D S N S
T W D P P V P K C L K V S H H H H H H

Fig. 13A

Fig. 13B

SEQ. ID NO:24

ATGACCGTCGCGCGGCCGAGCGTGCCCGCGGCGCTGCCC
CTCCTCGGGGAGCTGCCCCGGCTGCTGCTGCTGGTGTGTTGTGCCTGCCGGCCGTGTGGGGT
GACTGTGGCCTTCCCCCAGATGTACCTAATGCCCAGCCAGCTTTGGAAGGCCGTACAAGTTTT
CCCGAGGATACTGTAATAACGTACAAATGTGAAGAAAGCTTTGTGAAAATTCTGGCGAGAAG
GACTCAGTGATCTGCCTTAAGGGCAGTCAATGGTCAGATATTGAAGAGTTCTGCAATCGTAGC
TGCGAGGTGCCAACAAGGCTAAATTCTGCATCCCTCAAACAGCCTTATATCACTCAGAATTAT
TTTCCAGTCGGTACTGTTGTGGAATATGAGTGCCGTCCAGGTTACAGAAGAGAACCCTTCTCTA
TCACCAAACTAATTGCCTTCAGAATTTAAAATGGTCCACAGCAGTCGAATTTTGTA AAAAG
AAATCATGCCCTAATCCGGGAGAAATACGAAATGGTCAGATTGATGTACCAGGTGGCATATTA
TTTGGTGCAACCATCTCCTTCTCATGTAACACAGGGTACAAATTATTTGGCTCGACTTCTAGT
TTTTGTCTTATTTTCAGGCAGCTCTGTCCAGTGGAGTGACCCGTTGCCAGAGTGCAGAGAAAT
TATTGTCCAGCACCACCACAAATTGACAATGGAATAATTCAAGGGGAACGTGACCATTATGGA
TATAGACAGTCTGTAACGTATGCATGTAATAAAGGATTCAACCATGATTGGAGAGCACTCTATT
TATTGTACTGTGAATAATGATGAAGGAGAGTGGAGTGGCCCAACACCTGAATGC
TCGAGTCCTAACAAATGCACGCCTCCAAATGTGGAAAATGGAATATTGGTATCTGACAAC
AGAAGCTTATTTTCCTTAAATGAAGTTGTGGAGTTTAGGTGTCAGCCTGGCTTTGTCATG

AAAGGACCCCGCCGTGTGAAGTGCCAGGCCCTGAACAAATGGGAGCCGGAGCTACCAAGC
TGCTCCAGGGTATGTCAGCCACCTCCAGATGTCCTGCATGCTGAGCGTACCCAAAGGGAC
AAGGACAACTTTTCACCTGGGCAGGAAGTGTTCTACAGCTGTGAGCCCGGCTACGACCTC
AGAGGGGCTGCGTCTATGCGCTGCACACCCAGGGAGACTGGAGCCCTGCAGCCCCCACA
TGTGAAGTGAAATCCTGTGATGACTTCATGGGCCAACTTCTTAATGGCCGTGTGCTATTT
CCAGTAAATCTCCAGCTTGGAGCAAAAGTGGATTTTGTGTTGTGATGAAGGATTTCAATTA
AAAGGCAGCTCTGCTAGTTACTGTGTCTTGGCTGGAATGGAAAGCCTTTGGAATAGCAGT
GTTCCAGTGTGTGAACAAATCTTTTGTCCAAGTCCTCCAGTTATTCCTAATGGGAGACAC
ACAGGAAAACCTCTGGAAGTCTTCCCTTTGGAAAAGCAGTAAATTACACATGCGACCCC
CACCCAGACAGAGGGACGAGCTTCGACCTCATTTGGAGAGAGCACCATCCGCTGCACAAGT
GACCCTCAAGGGAATGGGGTTTGGAGCAGCCCTGCCCCCTCGCTGTGGAATTCTGGGTCAC
TGTGAGGAGCCACCAACATTTGAAGCTATGGAGCTCATTTGGTAAACCAAACCTACTAT
GAGATTGGTGAACGAGTAGATTATAAGTGTAAGGATACTTCTATATACCTCCTCTT
GCCACCCATACTATTTGTGATCGGAATCATAATGGCTACCTGTCTCAGATGACGCCTGT
TATAGAGAAACATGTCCATATATACGGGATCCTTTAAATGGCCAAGCAGTCCCTGCAAAT
GGGACTTACGAGTTTGGTTATCAGATGCACTTTATTTGTAATGAGGGTTATTACTTAATT
GGTGAAGAAATTCTATATTGTGAACCTTAAAGGATCAGTAGCAATTTGGAGCGGTAAAGCCC
CCAATATGTGAAAAGGTTTTGTGTACACCACCTCCAAAAATAAAAAATGGAAAACACACC
TTTAGTGAAGTAGAAGTATTTGAGTATCTTGATGCAGTAACTTATAGTTGTGATCCTGCA
CCTGGACCAGATCCATTTTCACTTATTGGAGAGAGCACGATTTATTGTGGTGACAATTCA
GTGTGGAGTCGTGCTGCTCCAGAGTGTAAGTGGTCAAATGTGATTTCCAGTAGTCGAA
AATGGAAAACAGATATCAGGATTTGGAAAAAATTTTACTACAAAGCAACAGTTATGTTT
GAATGCGATAAGGGTTTTTACCTCGATGGCAGCGACACAATTGTCTGTGACAGTAACAGT
ACTTGGGATCCCCCAGTTCCAAAGTGTCTTAAA//GTGTCG//CATCACCATCACCATCAC
TAAAGATCT

Fig. 13B